Memo

Work Order ID 90319 ->

September-17-12 9:58:31 AM

Quality Control

90319

Page 1

September 11 12	S STREET IN	76.									
Revision ID:	D3849-041			Accept	*N900	040	100)* s	etup Start	17	S1*
Item Name:	FWD WEAR	PLATE ASSY, STD/FL	OAR GEAR						Stop	*N	S2*
Start Date: Required Date: Reference:	9/17/12 10/12/12	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*		Cust Item I Customer:	D:					
Approvals:	Process Pla	an: MLゴ	Date: \2-09-1	8 Tooling:	D	ate:		R	tun Star	171	R1*
	QC:		Date:	SPC (Y/N):	D	ate:			Stop	*N	R2*
Sequence ID/ Work Center II	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Re	vision Nbr									EX
D3849	Q.	D DES 12109	119								
110		643		0.00				4.00	10		
110								4x	13	02-	01 m
Large Fab		Memo		0.00							
Large Fab		2059 B H	ol-1 bar, fill cut outs with ardcoat Welding Rod	hardcoat welding rod as per	dwg D3849				4		
		2- Weld D 304 S.S. BATCH	3901-1 bar to wearplate as Welding Rod 9/6/ #: M 99/8/6/	s per dwg D3849							
		3- Transfer	drill holes as per dwg								
at.		4- Cut exce	ess bar material if necessar	У							
									4		
120		QC9- Inspect visual per	QSI004- Fusion Welds	0.00							DAC
120								(4)	13.00	- OU	09
QC		Memo		0.00					.5 00	, 07	8 89

											DQA:	Date	9:	250
NCR:	Yes	/ No				WORK ORDER NON-	CO	VFORM	MANCE / UPDATE					19
											QA Closed:	Date	2:	
Work Ord	er:					DISPOSITION	,			ST DE	PARTMENT		i.	
Part No						Scrap Machining Si Use-as-is Thermoforming F				Erosstube Water Jet E Small Fab Prod. Eng. Coor. Finishing Rec/Store/Packaging Composite Supplier				
Root						iption of work order update		Initial	Action		Sign &	a line in the		
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Description		Date	Verification	C	C Inspector
Doc/Data														
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Process	ij													
Supplier										- 2	- 373			
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Unapproved														
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16		Centre No	t Concer	ntric to	O/S	BOM/Route		Hardwa	re	12.	Over/Under	tolerance	Temp	perature/Cure
		Cracks				Broken/Damaged		Inspecti	on Incomplete	107	Part Incorre	ct	Weld	E P
	Crushed/Crimped Burrs					⊣					Part Lost/M	ssing	Wron	ng Stock Pulled
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	Heat Treat Countersink							Mislabe		1000	Positioned V	Vrong		
E 00	~	Inspection		Tube		Cut Too Short		Misread						r

Offset

Out of Call bration

Out of Sequence

Dutside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Page 2

September-17-12 9:58:31 AM Item ID: D3849-041 *N900040100* Accept Setup Start Revision ID: Item Name: FWD WEARPLATE ASSY, STD/FLOAR GEAR *4* Start Qty: 4.00 Start Date: 9/17/12 Cust Item ID: Required Date: 10/12/12 Req'd Qty: 4.00 *4* Customer: Reference: Run Start Approvals: Process Plan: Tooling: Date: Date: Stop QC: SPC (Y/N): Date: Date: Operation Sequence ID/ Set Up/ Tool ID Tool# Reject Reject Plan Accept Insp. Work Center ID Description Qty Qty Code Run Hours Number Stamp 130 QC5- Inspect part completeness to step on W/O 0.00 DAS *130* 13-02-04 QC 0.00 Memo Quality Control 140 0.00 (4) *140* Small Fab 0.00 Memo Small Fab 1- Apply a layer of rockguard as per dwg 123887 BATCH: 150 QC5-Inspect part completeness to step on W/O *150* QC Memo Quality Control

NCR: Yes	NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE QA Closed: Date:												
Work Order:		Fig.	Jan-	200	DISPOSITION	T			AGAINST DE	874257	7.10 T 1		
Part No.					Rework Scrap Use-as-is Work Order Update			Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite		Water Jet J. Eng. Coor. e/Packaging Supplier	Engineering Quality Other	
Root					ption of work order update	Init		~	ction	Sign &			
Cause	Date	Step	Qty		or Non-conformance	Chief	Eng	Desc	cription	Date	Verification	QC Inspector	
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved													
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	Bending Centre Not Concentric to O/S Cracks Crushed/Crimped				Bend BOM/Route Broken/Damaged Burrs	H:	Grain Hardware Inspection Incomplete Instructions Incomplete/Unclear			Ovalized Over/Under Part Incorrec Part Lost/Mi	tolerance ct	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled	
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	Heat Treat C			Countersink	TV.	islabe	led	100	Positioned V				
and the same	Inspection		Tube		Cut Too Short	-	isread	i		Power Loss/	Surge	Other	
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DQA:

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90319

Page 3

Insp.

September-17-12 9:58:31 AM Item ID: D3849-041 Accept *N900040100* Setup Start Revision ID: Item Name: FWD WEARPLATE ASSY, STD/FLOAR GEAR *4* Start Qty: 4.00 Start Date: 9/17/12 Cust Item ID: Req'd Qty: 4.00 *4* Required Date: 10/12/12 Customer: Reference: Start Run Approvals: Process Plan: Tooling: Date: Date: Stop QC: SPC (Y/N): Date: Date: Operation Sequence ID/ Set Up/ Tool ID Tool # Plan Reject Accept Reject Description Work Center ID Qty Qty Number Stamp Run Hours Code Identify as per dwg & Stock Location: [-1007 160 0.00 *160* Packaging 0.00 Memo Packaging

170

QC21- Final Inspection - Work Order Release

0.00

170

QC

Memo

0.00

Quality Control

1/2/6/40 NW2 13-2-06

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NCR:	Yes /	No	

WORK ORDER NON-CONFORMANCE / UPDATE

DQA:	Date:	1904

		mis.	345							QA Closed:	Date	
Work Order: Part No.					DISPOSITION Rework Scrap Use-as-is Work Order Update			Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	Proc Rec/Stor	Engineering Quality Other	
Root Cause								A	ction	Sign & Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved												
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Landing	Gear Bending Centre No Cracks Crushed/G Cuffs Heat Trea Inspection Ripples in	Crimped t n Strip in		O/S	General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		Grain Hardware Inspection Incomplete Instructions Incomplete/Unclear Maintenance Mislabeled Misread Offset			Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct issing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
- T	Torque Waves in Extrusion Drawing Turning Sequence Finish Wave/Twist in Tube						Out of Calibration Out of Secuence Outside Dimensions					

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

, Picklist Print

September-17-12 9:58:30 AM

Work Order ID:

90319

Parent Item:

D3849-041

Parent Item Name:

FWD WEARPLATE ASSY, STD/FLOAR GEAR

Start Date: 9/17/12

Required Date: 10/12/12

Page

Start Qty: 4.00

Required Qty: 4.00

Comments:

IPP RevA: New issue DD verified by:EC DWG REV.D DD VERF:JLM

IPP Rev:B 12.09.11 AS PER

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3849-1	D 020//0	Manufactured	No			110	Each	0.0000	1	4			
Plate D3901-1 Bar	B 42044	Manufactured	No			110	Each	8.0000	1	4x 4	13-0	2-01	MAC
B 93748	(x 3)			Location WA		Loc Qty	Lo	c Code		1			
B 9/340				87316 WA030	Š	4			4)		13-00	2-01	MAI

89452

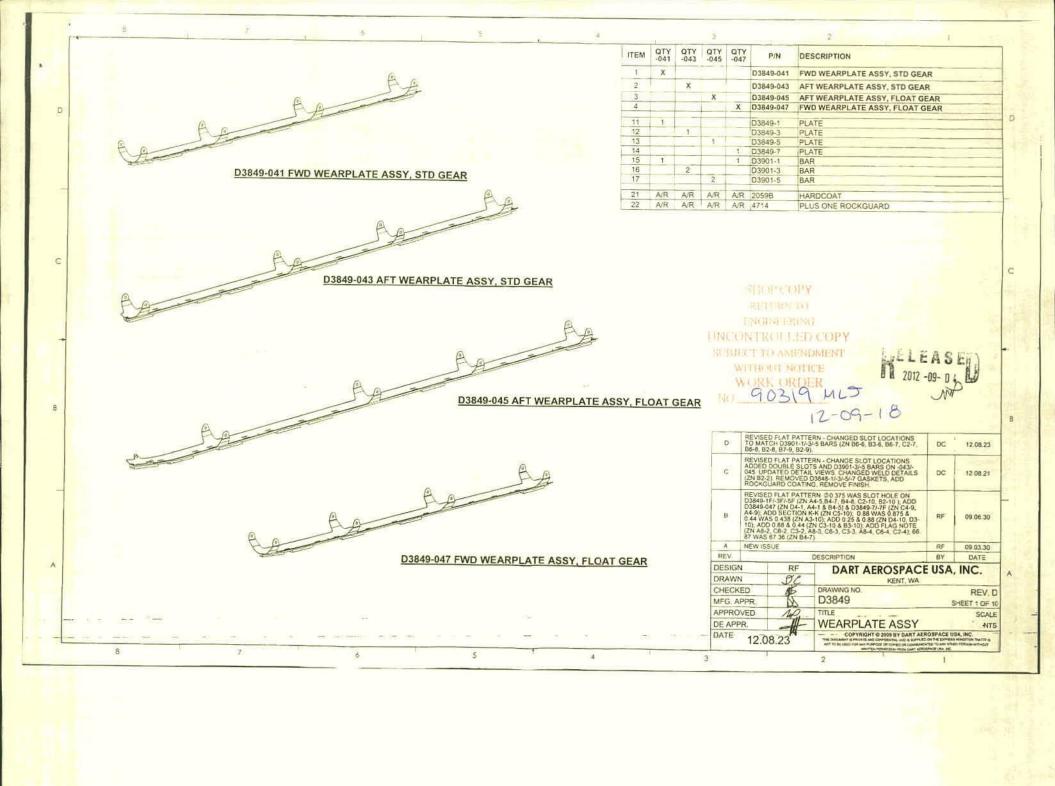
QA Closed: Date:	NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE												
	HE												
Work Order: Rework Skid-tube Crosstube Water Jet Engineeri	ity												
Root Description of work order update Initial Action Sign &													
Cause Date Step Qty or Non-conformance Chief Eng Description Date Verification QC Inst	ector												
Doc/Data Equip/Tooling Operator Operator Other Oth													
FAULT CATEGORY	= == 710												
Landing Gear General													
Bending Bend Grain Ovalized Pressure/For Centre Not Concentric to O/S BOM/Route Hardware Over/Under tolerance Temperature Cracks Broken/Damaged Instructions Incomplete Part Incorrect Weld Crushed/Crimped Burrs Instructions Incomplete/Unclear Part Lost/Missing Wrong Stock Cuffs Contamination Maintenance Part Moved Heat Treat Countersink Mislabeled Positioned Wrong	e/Cure												
Inspection Strip in Tube Cut Too Short Misread Power Loss/Surge Other													
Ripples in Bend Drill Holes Offset													
Torque Waves in Extrusion Drawing Out of Calibration	HEESET NEW												
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DQA:

Date:

Wave/Twist in Tube

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N-											QA Closed:	Date	1 Test	Š
Work Orde	er:					DISPOSITION		15		AGAINST DE	PARTMENT	/PROCESS		
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Root						ption of work order update		n tial	Actio		Sign &			
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Offset

Out of Calibration

Out of Secuence

Outside D mensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Ripples in Bend

Turning Sequence

Wave/Twist in Tube

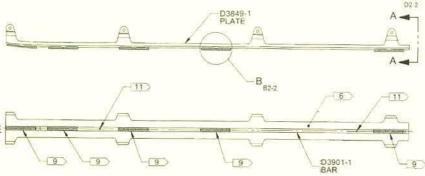
Torque Waves in Extrusion

Drill Holes

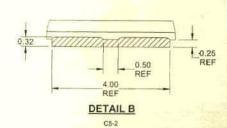
Drawing

Finish

E TYP



D3849-041 FWD WEARPLATE ASSY, STD/FLOAT GEAR



SECTION A-A

RELEASED 2012 -09- 04-

90319

C

NOTE	
	TERIAL: N/A
2) FIN	ISH: NONE
3) TO	ERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
41110	LIVINGES, PER DART QSTOTE ONCESS OTHERWISE NOTED
4) UN	TS: INCHES UNLESS OTHERWISE NOTED
5) BR	FAK SHARP EDGES: 0.005 TO 0.010 MAX
B) IDE	NTIFICATION: IDENTIFY PER QSI 044 6.1 AS SHOWN
7) 10/5	COUT DOOR DENTIFY FER UST 044 B. I AS SHOWN
1) WVE	GHT: D3849-041 = 4.58 lbs
8) WE	LDING: PER QSI 004
91 204	OR HARDCOAT WELD 0.32 THICK - 0.50 WIDE FLUCLIANTU DOOR 4.040 CHILATERAL CURRENT
1010	9B HARDCOAT WELD, 0.32 THICK x 0.50 WIDE, FLUSH WITH D3901-1 BAR ON LATERAL SURFACES
-1010	DAT-ENTIRE-TOP (CONCAVE) SURFACE WITH A LAYER OF PLUS ONE ROCKGUARD 4714, 0.020-0.040 THICK
11) T	ANSFER DRILL #0.188 HOLES FROM D3849-1 PLATE TO D3901-1 BAR

DESIGN	RF	DART AEROSPACE USA, INC.							
DRAWN	DC	KENT, WA							
CHECKED	15	DRAWING NO.	REV. D						
MFG. APPR.	18	D3849	SHEET 2 OF 10						
APPROVED	143	TITLE	SCALE						
DE APPR.	-14	WEARPLATE ASSY	NTS						
DATE 12.0	8.23	COPYRIGHT © 2003 BY DART AEROS PER COCLAMATE AND COMPOSITION AND IN THE COMPOSITION OF COPYRIGHT OF COMPOSITION OF COPYRIGHT OF COPYRIG	SPACE USA, INC.						

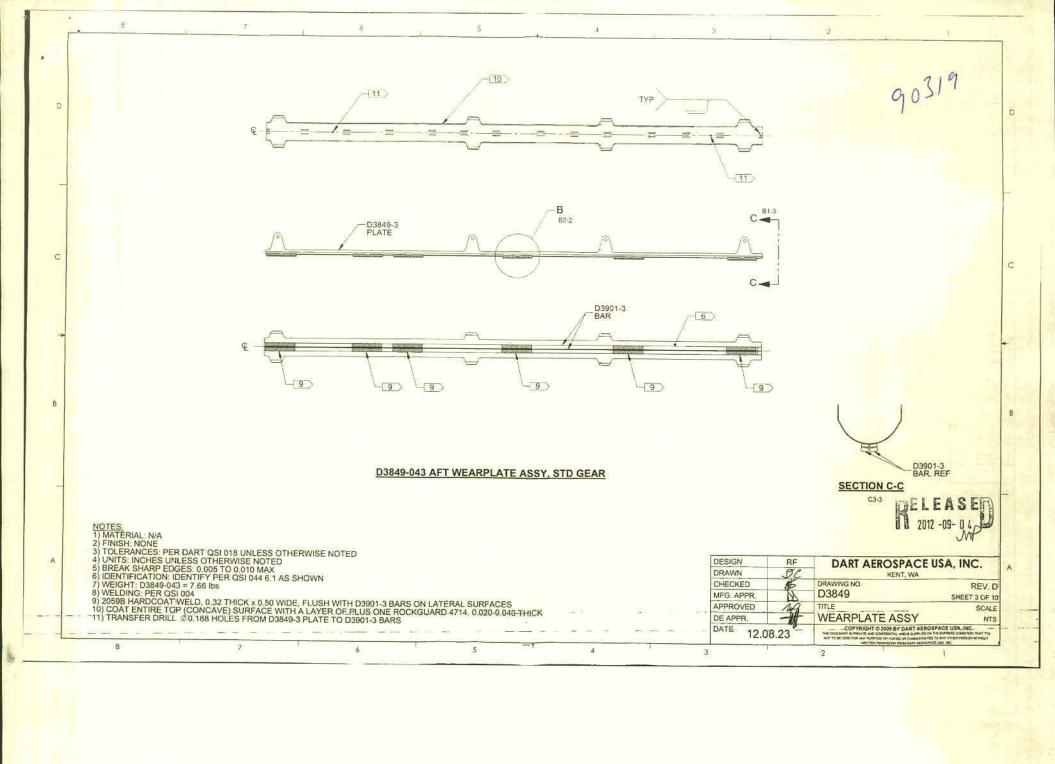
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NCR: Y	NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE QA Closed: Date:																	
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Work Orde	er:					i	DISPOSITION		AGAINST DEPARTMENT/PROCESS									
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E TO	\vdash	Heat Trea				Countersink		Mislabe		-	Positioned V		E N	. ii	
AR T	$\overline{}$	nspection		Tube		Cut Too Short		Misread			Power Loss/	Surge	Ot	ther	
0	-	Ripples in				Drill Holes		Offset	402	4	O STATE OF		457		
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Out of Secuence

Outside D mensions

DQA:

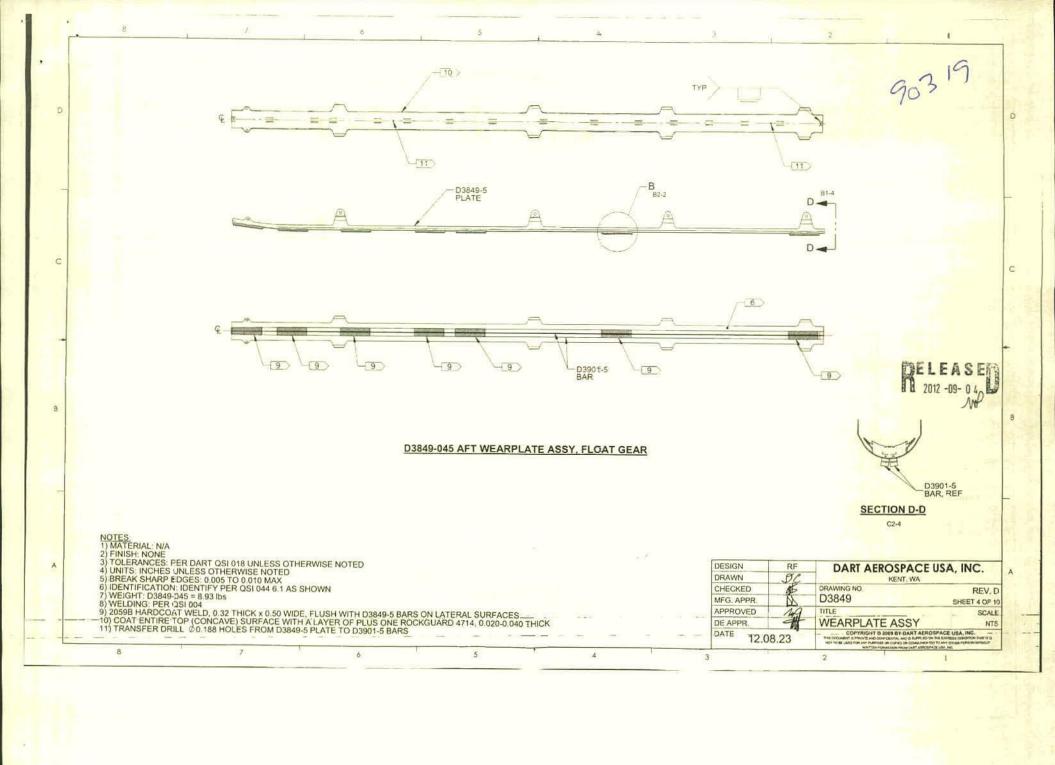
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Turning Sequence

Wave/Twist in Tube

Finish Folio



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Work Orde	r:		4 25			DISPOSITION		AGAINST DEPARTMENT/PROCESS						
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Part N	10.					Scrap Use-as-is			Machining Small Fab	_	2/3	re/Packaging	-	Other
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Root					Descri	ption of work order update	Ī	nitial	Action		Sign &		S-142	
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Process										46				
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5	Cracks Broken/Damaged								ion Incomplete	-	Part Incorre			Weld
						Burrs	_		tions Incomplete/Unclear	Part Lost/Missing Wrong Stock Pulled				
Cuffs Contamination											Part Moved Positioned Wrong			
		Heat Trea		Tubo	-	Countersink				Power Loss/			Other	
	Inspection Strip in Tube Cut Too Short							Officet			Jrower Luss/	Jurge		Duiei

Out of Calibration

Out of Sequence

Outside Dimensions

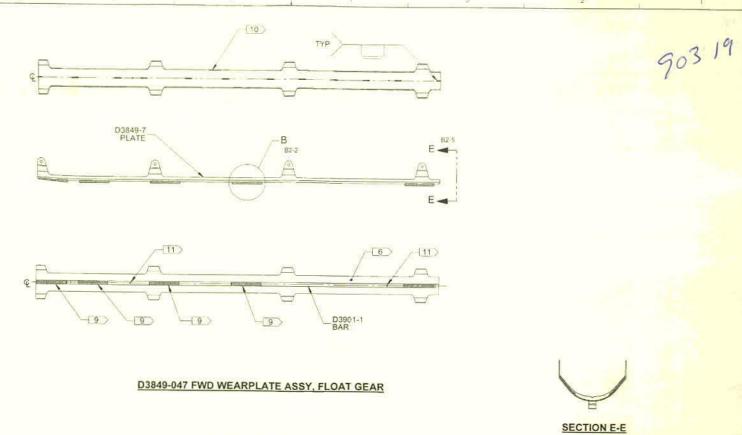
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Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing Finish



NOTES:
1) MATERIAL: N/A
2) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDBES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1 AS SHOWN
7) WEIGHT: D3849-047 = 4,60 lbs
8) WELDING: PER QSI 004
9) 2059B HARDCOAT WELD, 0.32 THICK x 0.50 WIDE, FLUSH WITH D3901-1 BAR ON LATERAL SURFACES
10) COAT ENTIRE TCP (CONCAVE) SURFACE WITH A LAYER OF PLUS ONE ROCKGUARD 4714, 0.020-0.040 THICK
11) TRANSFER DRILL: 00.188 HOLES FROM D3849-7-PLATE-TO D3901=1-BAR

DESIGN RF DART AEROSPACE USA, INC. DRAWN KENT, WA CHECKED DRAWING NO. REV. D D3849 MFG. APPR. SHEET 5 OF 18 APPROVED TITLE SCALE WEARPLATE ASSY DE APPR. NTS DATE - 12.08.23 COPYRIGHT © 2019 BY-DART ASROSPACE USIA, INC.

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										DQA:	Date:			
NCR: Y	es / No				WORK ORDER NON-C	O	VFOR	MANCE / UPD	DATE					
										QA Closed:	Date:			
Work Orde	ar:				DISPOSITION									
Part N	No				Rework Scrap Use-as-is Work Order Update			Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	-	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other		
Root					ption of work order update		ritial	Act		Sign &				
Cause	Date	Step	Qty.	(or Non-conformance	Ch	ief Eng	Descr	iption	Date	Verification	QC Inspector		
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	1000	ot Concer	ntric to (o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure		
i i	Cracks				Broken/Damaged			on Incomplete	100	Part Incorred		Weld		
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Mislabelec

Out of Calibration

Out of Sequence

Outside Dimensions

Misread

Offset

Positioned Wrong

Power Loss/Surge

Other

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Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

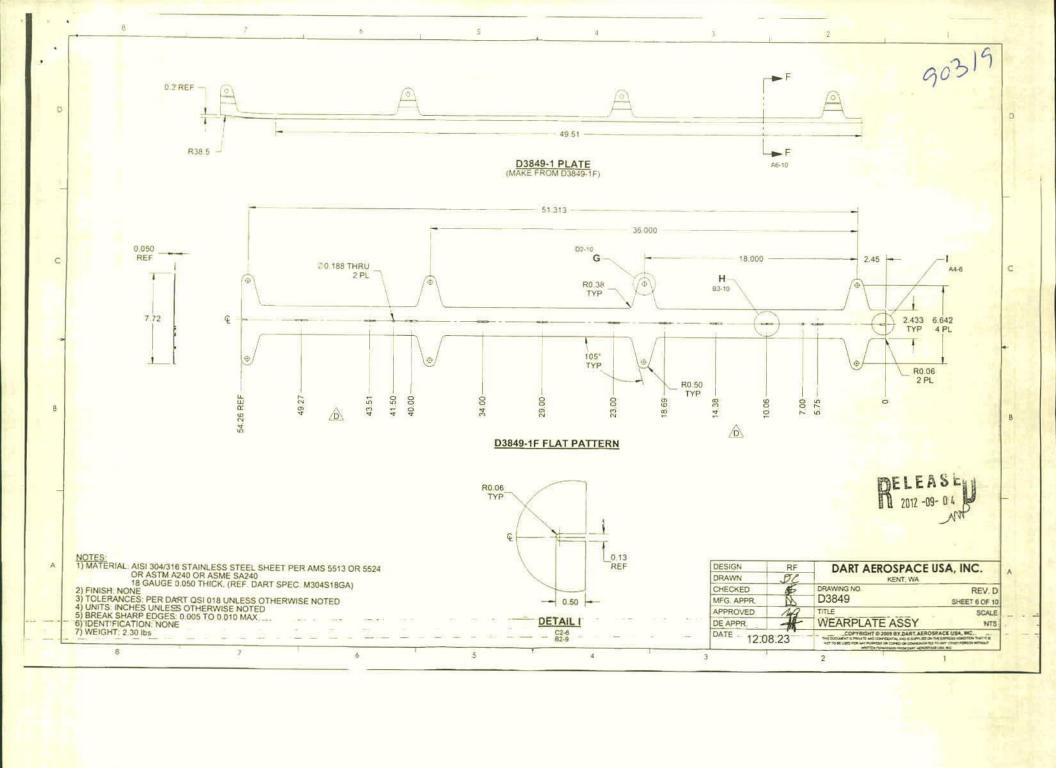
Counters nk

Cut Too Short

Drill Holes

Drawing

Finish



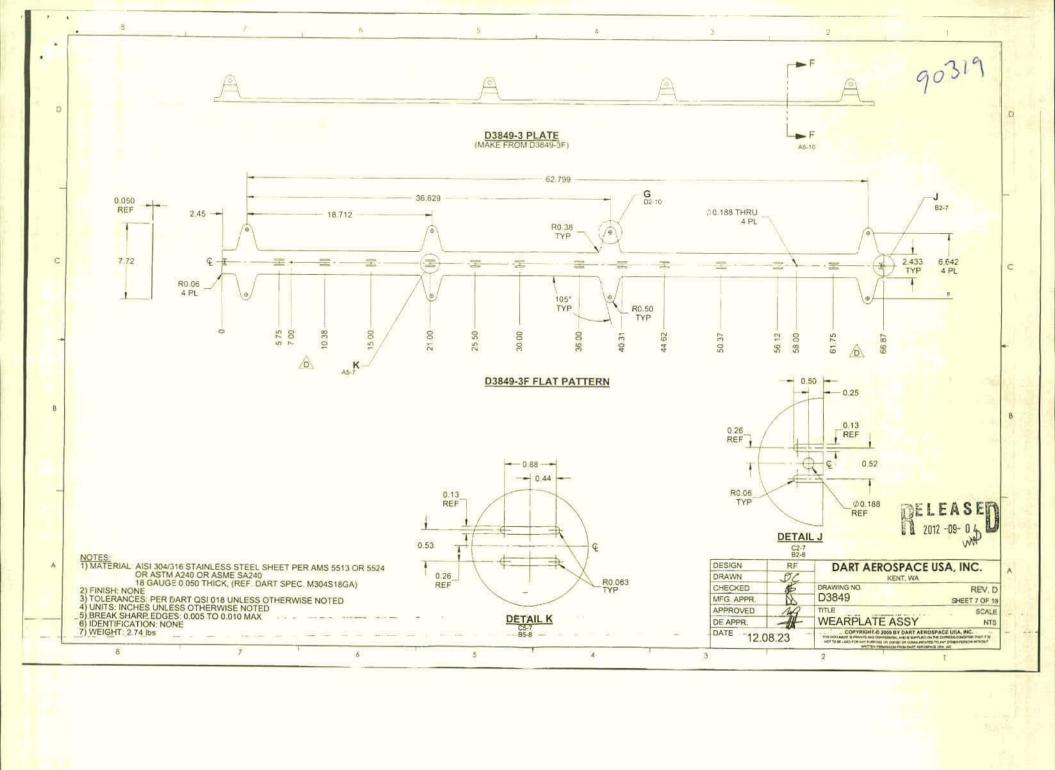
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	Ripp	les in Bend			Drill Holes		Offset									
100a- 1007	Tore	que Waves in	Extrusio	n	Drawing		Out of 0	Calibration		- 4.2	The Market Street					
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Wave/Twist in Tube



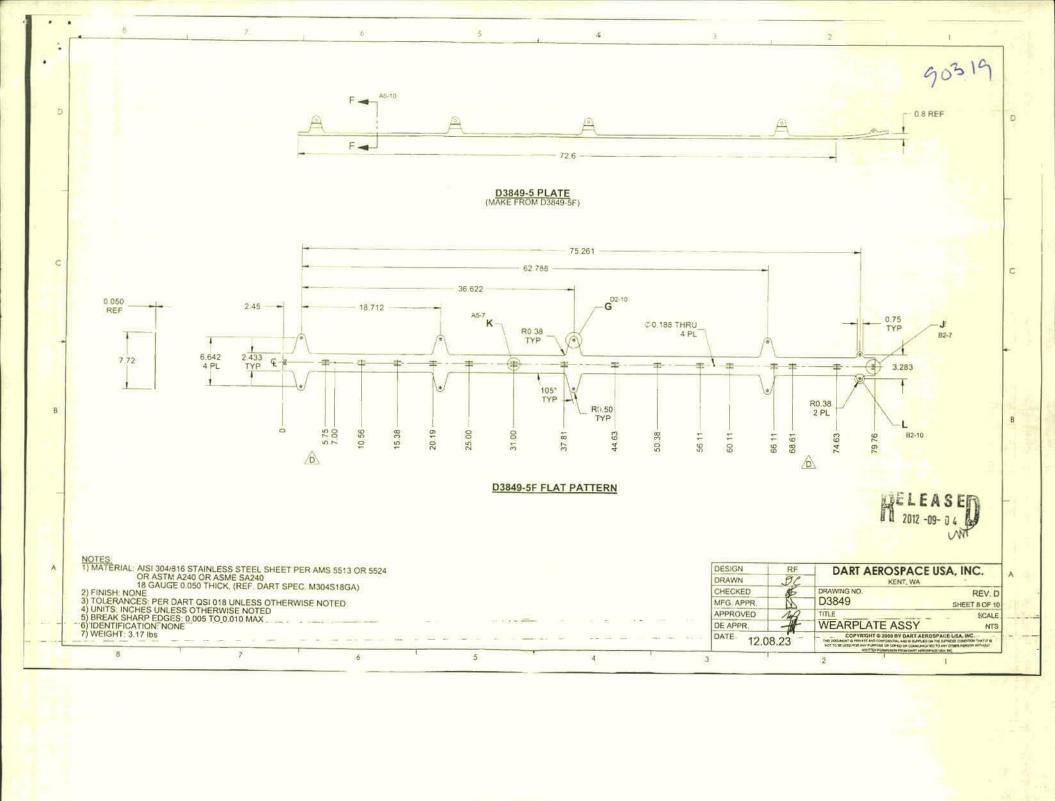
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Wave/Twist in Tube

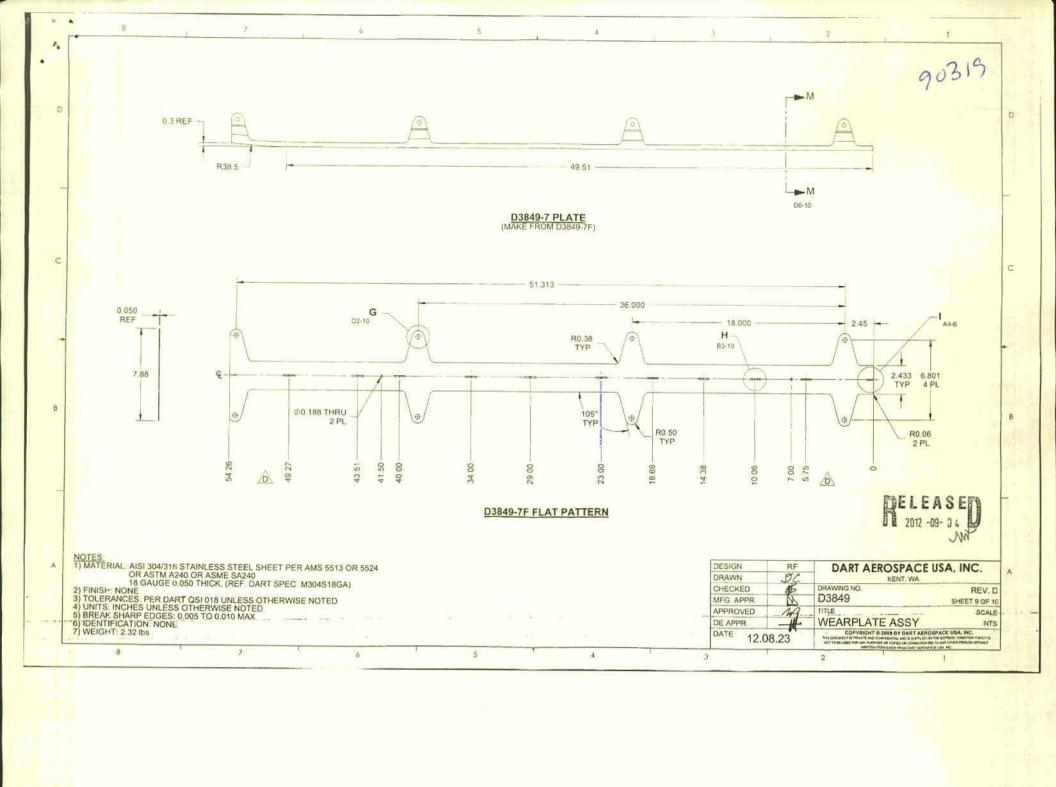
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WORK ORDER NON-CONFORMANCE / UPDATE NCR: Yes / No QA Closed: Date: AGAINST DEPARTMENT/PROCESS DISPOSITION Work Order: Rework Skid-tube Crosstube Water Jet Engineering Part No. Machining Small Fab Prod. Eng. Coor. Quality Scrap Use-as-is Thermo orming Finishing Rec/Store/Packaging Other NCR No. Work Order Update Large Fab Composite Supplier Description of work order update Root Iritial Action Sign & Chief Eng or Non-conformance Cause Date Step Qty Description Date Verification QC Inspector Doc/Data Equip/Tooling Operator Material Setup Other **Process** Supplier Training Unapproved **FAULT CATEGORY Landing Gear** General Ovalized Pressure/Forced Bending Bend Grain BCM/Route Centre Not Concentric to O/S Hardware Over/Under tolerance Temperature/Cure Cracks Broken/Damaged Weld Inspection Incomplete Part Incorrect Crushed/Crimped Burrs Instructions Incomplete/Unclear Part Lost/Missing Wrong Stock Pulled Cuffs Maintenance Contamination Part Moved **Heat Treat** Countersink Mislabelec Positioned Wrong Other Inspection Strip in Tube Cut Too Short Misread Power Loss/Surge Ripples in Bend **Drill Holes** Offset Torque Waves in Extrusion Drawing **Out of Calibration Turning Sequence** Finish Out of Sequence Folio Wave/Twist in Tube **Outside Dimensions**

DQA: _____ Date:

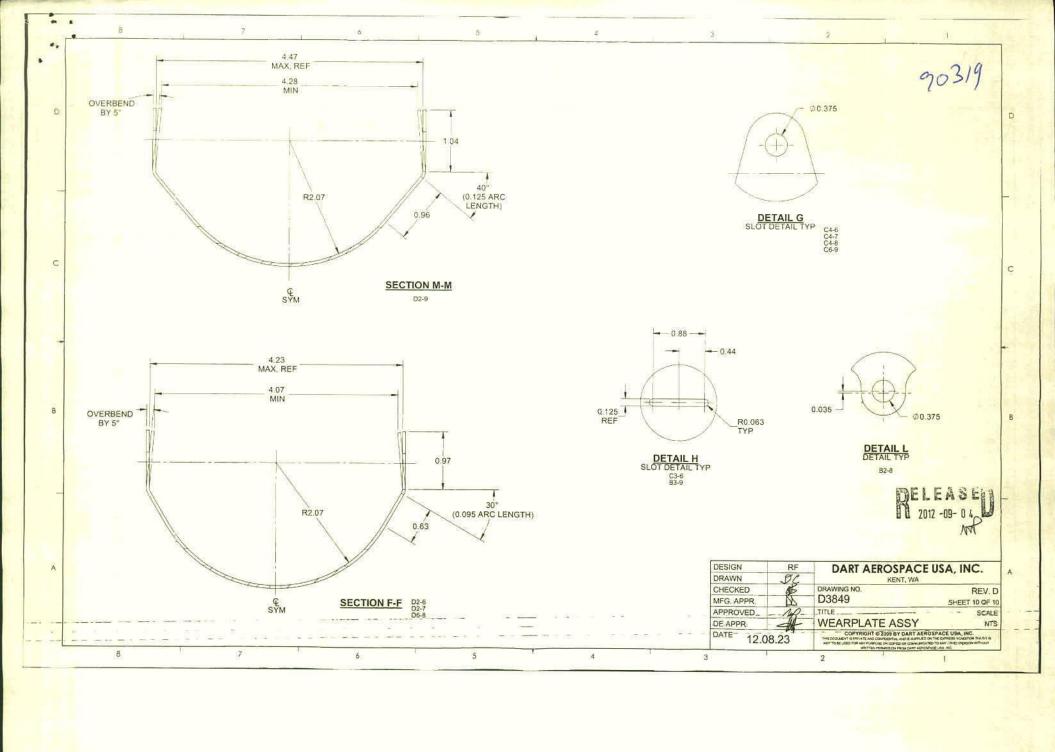
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Wave/Twist in Tube



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Cause		Date	Step	Qty		ori	Non-conformance	Ch	ief Eng	Descr	iption	Date	Verification	QC Inspector
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Out of Cal bration

Out of Secuence

Outside Dimensions

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Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish